



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0448; Directorate Identifier 2013-CE-007-AD]

RIN 2120-AA64

Airworthiness Directives; Eclipse Aerospace, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all Eclipse Aerospace, Inc. Model EA500 airplanes equipped with Avio, Avio with ETT, or Avio NG 1.0 avionics suites. This proposed AD was prompted by a report of potential aircraft hardware failure in the autopilot control panel and the center switch panel. This proposed AD would require either incorporating updates to the aircraft computer system or incorporating a temporary revision to the aircraft flight manual. We are proposing this AD to correct the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Eclipse Aerospace, Inc. 26 East Palatine Road, Wheeling, Illinois 60090; telephone: (877) 373-7978; Internet: www.eclipse.aero. You may review copies of the referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Scott Fohrman, Aerospace Engineer, FAA, Chicago Aircraft Certification Office, 2300 East Devon Avenue, Room 107, Des Plaines, Illinois 60018; phone: (847) 294-7136; fax: (847) 294-7834; email: scott.fohrman@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0448; Directorate Identifier 2013-CE-007-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory,

economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We have received a report from Eclipse Aviation, Inc. that there is a potential problem with the hardware/software combination within the autopilot control panel and/or center switch panel on all Model EA500 airplanes equipped with Avio, Avio with ETT, or Avio NG 1.0 avionics suites that could result in uncommanded fire suppression system activation and simultaneous shutdown of both engines.

This condition, if not corrected, could cause dual engine failure and result in loss of control.

Relevant Service Information

We reviewed Eclipse Aerospace, Inc. Mandatory Service Bulletin Number SB 500-31-014, Rev. A, dated February 15, 2011, and Eclipse Aerospace, Inc. Mandatory Service Bulletin Number SB 500-31-019, Rev B, dated March 13, 2013. These service bulletins describe procedures for updating the aircraft computer system for all affected airplanes. We have also reviewed Eclipse Aerospace, Inc. Mandatory Service Bulletin Number SB 500-31-026, Rev. A, dated November 6, 2012. This service bulletin described procedures for updating the aircraft flight manual (AFM) for affected airplanes equipped with NG 1.0 avionics suites.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously, except as discussed under “Differences Between the Proposed AD and the Service Information.”

Differences Between the Proposed AD and the Service Information

Eclipse Aerospace, Inc. Mandatory Service Bulletin Number SB 500-31-026, Rev. A, dated November 6, 2012, which applies only to airplanes equipped with NG 1.0 avionics suites, requires incorporating a temporary revision into the AFM and incorporating an update to the aircraft computer system (ACS) hardware with monthly data uploads to Eclipse Aerospace, Inc. until the ACS software is updated. Specifically, the AFM revision requires an altered engine start and emergency procedures checklist. This proposed AD would allow doing either the AFM revision or the ACS software update.

Costs of Compliance

We estimate that this proposed AD affects 81 airplanes of U.S. registry. There are 38 of the affected airplanes equipped with Avio or Avio ETT avionics suites and 43 of the affected airplanes equipped with NG 1.0 avionics suites.

We estimate the following costs to comply with this proposed AD. Airplanes equipped with NG 1.0 avionics suites would be allowed do either the AFM update or the ACS update:

Estimated costs for airplanes equipped with Avio or Avio ETT avionics suites

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Aircraft computer system update for airplanes equipped with Avio or Avio ETT avionics suites	.5 work-hour X \$85 per hour = \$42.50	\$1,950	\$1,992.50	\$1,992.50 X 38 affected airplanes = \$75,715.00

Estimated costs for airplanes equipped with NG 1.0 avionics suites (it would require either the AFM update OR the ACS update)

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Flight manual update for airplanes equipped with NG 1.0 avionics suites	.5 work-hour X \$85 per hour = \$42.50	Not applicable	\$42.50	\$42.50 X 43 affected airplanes = \$1,827.50
OR				
Aircraft computer system update for airplanes equipped with NG 1.0 avionics suites	.5 work-hour X \$85 per hour = \$42.50	\$37,000	\$37,042.50	\$37,042.50 X 43 affected airplanes = \$1,592,827.50

Incorporating the flight manual update represents a terminating action for AD compliance without imposing any limitations on aircraft operations. It is the operator's choice to incorporate either the flight manual update or the software update.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, section 44701: “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Eclipse Aerospace, Inc.: Docket No. FAA-2013-0448; Directorate Identifier 2013-CE-007-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

This AD applies to the following Eclipse Aerospace, Inc. Model EA500 airplanes, all serial numbers, that are certificated in any category, and are equipped with:

- (1) Avio avionics suites; or
- (2) Avio with ETT avionics suites; or
- (3) Avio NG 1.0 avionics suites.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code, Code 23: Communications.

(e) Unsafe Condition

This AD was prompted by a report of potential aircraft hardware failure in the autopilot control panel and the center switch panel. We are issuing this AD to prevent failure of the hardware/software combination within the autopilot control panel and/or

center switch panel, which could result in uncommanded fire suppression system activation and simultaneous shutdown of both engines.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Update Aircraft Computer Software (ACS)

(1) For airplanes equipped with Avio or Avio with ETT avionics suites: Within 6 calendar months after the effective date of this AD, update the ACS following paragraphs 3.A. through 3.C. of the Accomplishment Instructions in Eclipse Aerospace, Inc. Mandatory Service Bulletin Number SB 500-31-014, Rev. A, dated February 15, 2011.

(2) For airplanes equipped with NG 1.0 avionics suites: Within 6 calendar months after the effective date of this AD, do one of the following:

(i) Insert airplane flight manual Temporary Revision (TR) 016 into the Limitations section of the airplane flight manual following paragraph 3.B.(1)(a) of the Accomplishment Instructions in Eclipse Aerospace, Inc. Mandatory Service Bulletin Number SB 500-31-026, Rev. A, dated November 6, 2012; or

(ii) Update the ACS following paragraphs 3.A. through 3.C. of the Accomplishment Instructions in Eclipse Aerospace, Inc. Mandatory Service Bulletin Number SB 500-31-019, Rev. B, dated March 13, 2013.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Chicago ACO, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

(1) For more information about this AD, contact Scott Fohrman, Aerospace Engineer, FAA, Chicago Aircraft Certification Office, 2300 East Devon Avenue, Room 107, Des Plaines, Illinois 60018; phone: (847) 294-7136; fax: (847) 294-7834; email: scott.fohrman@faa.gov.

(2) For service information identified in this AD, contact Eclipse Aerospace, Inc. 26 East Palatine Road, Wheeling, Illinois 60090; telephone: (877) 373-7978; Internet: www.eclipse.aero. You may review copies of the referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Issued in Kansas City, Missouri, on May 15, 2013.

Earl Lawrence,
Manager, Small Airplane Directorate,
Aircraft Certification Service.

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